



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**08.10.2003 Bulletin 2003/41**

(51) Int Cl.7: **H04L 12/56**

(43) Date of publication A2:  
**27.02.2002 Bulletin 2002/09**

(21) Application number: **01120230.6**

(22) Date of filing: **23.08.2001**

(84) Designated Contracting States:  
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU  
MC NL PT SE TR**  
Designated Extension States:  
**AL LT LV MK RO SI**

(72) Inventors:  
• **Karino, Shuichi**  
**Minato-ku, Tokyo (JP)**  
• **Ishii, Shuji**  
**Minato-ku, Tokyo (JP)**

(30) Priority: **25.08.2000 JP 2000255872**

(74) Representative: **Glawe. Delfs. Moll**  
**Patentanwälte**  
**Postfach 26 01 62**  
**80058 München (DE)**

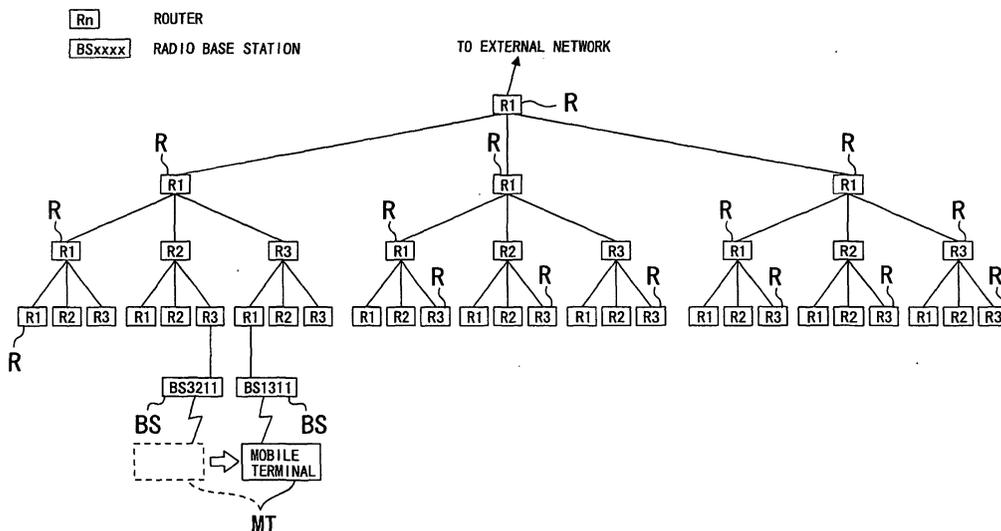
(71) Applicant: **NEC CORPORATION**  
**Tokyo (JP)**

(54) **Route updating method for micromobility network**

(57) A micromobility network includes routers (R) connected in a tree connection and radio base stations (BS) connected to the routers (R) in the lowest layer such that an updating notification of a route from a mobile terminal (MT) is repeated in order from a radio base station (BS) to successive higher order routers (R) to update the route and a packet is distributed along the updated route. In the mobility network, directly lower order routers (R) to each router (R) are numbered to the

numbers 1 to n with reference to the direct lower order router accommodation number n, and a route from the radio base station (BS) to the router (R) in the highest layer represented by a route number composed of the numbers of the thus numbered routers (R) is applied to the radio base station (BS). Upon updating notification, the route number is referred to to determine a stage number m of a transmission range and the updating notification is transmitted to a higher order router (R) corresponding to the stage number m.

**FIG. 2**





European Patent  
Office

EUROPEAN SEARCH REPORT

Application Number  
EP 01 12 0230

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	<p>RAMJEE R ET AL: "HAWAII: a domain-based approach for supporting mobility in wide-area wireless networks" PROC. IEEE INTERNATIONAL CONFERENCE NETWORK PROTOCOLS, 31 October 1999 (1999-10-31), pages 283-292, XP010356967 abstract * page 284, column 1, line 23 - line 26 * * page 285, column 1, line 6 - line 29 * * page 285, column 2, line 1 - line 24 * * page 286, column 1, line 26 - line 44 * * page 287, column 2, line 2 - line 6 * * page 289, column 1, line 35 - page 291, column 1, line 19; figure 6 *</p> <p style="text-align: center;">---</p>	1-6	H04L12/56
X,D	<p>A.G.VALKO: "Cellular IP: A New Approach to Internet Host Mobility" ACM, [Online] XP002250272 Retrieved from the Internet: &lt;URL:http://www.acm.org/sigcomm/ccr/archiv e/1999/jan99/ccr-9901-valko.pdf&gt; [retrieved on 2003-08-01] abstract * page 3, line 39 - page 4, line 10 * * page 6, line 20 - page 7, line 20 *</p> <p style="text-align: center;">---</p>	1	<p>TECHNICAL FIELDS SEARCHED (Int.Cl.7)</p> <p>H04L</p>
X	<p>CACERES R ET AL: "Fast and scalable wireless handoffs in support of mobile Internet audio" MOBILE NETWORKS AND APPLICATIONS, BALTZER SCIENCE PUBLISHERS, BUSSUM, NL, vol. 3, no. 4, 1998, pages 351-363, XP002135845 ISSN: 1383-469X * page 353, column 1, line 33 - page 354, column 1, line 28 *</p> <p style="text-align: center;">-----</p>	1	
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
MUNICH		8 August 2003	Plata-Andres, I
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons</p> <p>..... &amp; : member of the same patent family, corresponding document</p>			

EPO FORM 1503.03.82 (P04001)